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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/017,504	12/14/2001	John O. Lamping	020087-003500US	5615

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EXAMINER

NGUYEN, CINDY

ART UNIT	PAPER NUMBER
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2161

DATE MAILED: 11/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/017,504

Applicant(s)

LAMPING ET AL.

Examiner

Cindy Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-13 and 15-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-12 and 15-27 is/are rejected.
- 7) ☒ Claim(s) 3 and 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/06/06 has been entered.

Response to Arguments

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 11-13, 15-17 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

To be statutory, a claimed computer-related process must either: (a) result in a physical transformation outside the computer for which a practical application is either

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disclosed in the specification or would have been known to a skilled artisan, or (b) be limited to a practical application with useful, concrete and tangible result.

The claims direct to software per se and nor storing any results in any physical medium, claims have nothing to do and just claiming the first code thought the sixth code . In the above limitation, there is no physical transformation being claimed, a practical application would be established by a useful, concrete and tangible result

For it to be a tangible result, it must be more than a thought or a computation and must have a real world value rather than being an abstract idea.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 5-12, 15-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Liu et al. (US 6839680) (hereafter Liu).

Regarding claims 1, 11 and 27, Liu discloses: A method and a computer aided information organization device for clustering a plurality of items, each of the items including information, the method comprising:

inputting a plurality of items, each of the items including information, into a clustering process (documents is collected, col. 50, lines 13-18; col. 50, 47-50, Liu);

inputting an initial organization structure (standard category tree) into the clustering process, the initial organization structure including one or more categories, at least one of the categories being associated with one of the items (col. 50, lines 10-18, Liu);

processing using at least processing hardware the plurality of items based upon at least the initial organization structure and the information in each of the items in at least the clustering process (col. 45, lines 52-64; col. 47, lines 20-32, Liu)

automatically determining using at least the processing hardware a resulting organization structure based upon the processing of the plurality of items, the resulting organization structure comprising at least a portion of the initial organization structure and a modification to at least one of the categories of the initial organization structure such that an association of a first one of the items to at least one of the categories of the resulting organization structure is different from an association of the first one of the items to at least one of the categories of the initial organization structure (col. 49, lines 29-37; col. 50, lines 60-66, Liu).

storing the resulting organization structure in the one or more memories or another memory (col. 49, lines 24-28; col. 50, lines 38-40, Liu) .

Regarding claims 2 and 12, all the limitations of these claims have been noted in the rejection of claims 1 and 11 above, respectively. In addition, Liu discloses: wherein the processing comprises determining a likeness level between a first item and a second item, the likeness level between two items increased if they are both similar to items in one or more of the categories of the initial organization structure (col. 52, lines 33-59, Liu).

Regarding claim 5, all the limitations of this claim have been noted in the rejection of claim 1 above. In addition, Liu discloses: wherein the resulting organization structure relates to the initial organization structure based upon a category similarity (col. 52, lines 18-32, Liu).

Regarding claim 6, all the limitations of this claim have been noted in the rejection of claim 1 above. In addition, Liu discloses: wherein the resulting organization structure relates to the initial organization structure based upon a similarity of hierarchy structure (col. 51, lines 21-25, Liu).

Regarding claim 7, all the limitations of this claim have been noted in the rejection of claim 1 above. In addition, Liu discloses: wherein the item is a document, a product, a person, a DNA sequence, a purchase transaction, a financial record, or a species description (col. 52, lines 33-59, Liu).

Regarding claim 8, all the limitations of this claim have been noted in the rejection of claim 1 above. In addition, Liu discloses: further comprising outputting the resulting organization structure on an output device (col. 50, lines 1-18, Liu).

Regarding claim 9, all the limitations of this claim have been noted in the rejection of claim 1 above. In addition, Liu discloses: wherein the processing hardware uses at least a 500 MHz clock to efficiently run the clustering process (col. 63, lines 4-10, Liu).

Regarding claim 10, all the limitations of this claim have been noted in the rejection of claim 1 above. In addition, Liu discloses: wherein the plurality of items includes at least 10,000 items (col. 50, lines 47-49, Liu).

Regarding claim 15, all the limitations of this claim have been noted in the rejection of claim 11 above. In addition, Liu discloses: further comprising a sixth code directed to outputting the resulting organization structure, the resulting organization structure including a plurality of categories (col. 50, lines 28-40, Liu).

Regarding claim 16, all the limitations of this claim have been noted in the rejection of claim 15 above. In addition, Liu discloses: further comprising a seventh code directed to inputting additional items using the resulting organization structure (col. 50, lines 59-65, Liu).

Regarding claim 17, all the limitations of this claim have been noted in the rejection of claim 11 above. In addition, Liu discloses: further comprising a sixth code directed to independently modifying the resulting organization structure using a graphical user interface (col. 51, lines 25-34, Liu).

Regarding claim 18, all the limitations of this claim have been noted in the rejection of claim 17 above. In addition, Liu discloses: wherein a user provides the independently modifying coupled to the graphical user interface (col. 51, lines 25-34, Liu).

Regarding claim 19, Liu discloses: a computer implemented method for clustering a plurality of items, the method comprising: inputting a first hierarchy, the first hierarchy includes at least a parent category and a first child category (documents is collected, col. 50, lines 13-18; col. 50, 47-50, Liu);

inputting a plurality of items, each of the plurality of items including information at least one of the items being associated with one of the categories in the first hierarchy (documents is collected, col. 50, lines 13-18; col. 50, 47-50, Liu);

processing by the computer the plurality of items based upon at least the first hierarchy and the information in each of the items (col. 47, lines 20-32, Liu);

automatically determining a second hierarchy based upon the processing of the plurality of items in the clustering process, the second hierarchy including a portion of the first hierarchy and one or more additional categories coupled to the first hierarchy, at least one of the one or more additional categories being a second child category of the parent category of the first hierarchy (col. 45, lines 52 to col. 46, lines 12, Liu);

storing the second hierarchy in memory (col. 49, lines 24-28; col. 50, lines 38-40, Liu);

assigning each of the plurality of items to a category of the second hierarchy (col. 50, lines 63-66, Liu).

Regarding claim 20, , all the limitations of this claim have been noted in the rejection of claim 1 above. In addition, Liu discloses: wherein the clustering process is biased toward the categories of the initial organization structure (col. 50, lines 59-65, Liu).

Regarding claim 21, , all the limitations of this claim have been noted in the rejection of claim 20 above. In addition, Liu discloses: wherein the modification to at least one of the categories in the initial organization structure includes a modification to a first category such that the first item is associated with the first category of the resulting organization structure but is not associated with the first category of the initial organization structure (col. 50, lines 59-65, Liu).

Regarding claim 22, , all the limitations of this claim have been noted in the rejection of claim 20 above. In addition, Liu discloses: wherein the modification to at least one of the categories in the initial organization structure includes a modification to a first category such that the first item is associated with the first category of the initial organization structure but is not associated with the first category of the resulting organization structure (col. 50, lines 59-65, Liu).

Regarding claim 23, , all the limitations of this claim have been noted in the rejection of claim 1 above. In addition, Liu discloses: wherein the resulting organization structure includes at least one additional category coupled to the initial organization structure (col. 45, lines 52-63, Liu).

Regarding claim 24, , all the limitations of this claim have been noted in the rejection of claim 19 above. In addition, Liu discloses: wherein the clustering process guarantees that the resulting organization structure is an extension of the initial organization structure (col. 49, lines 37-43, Liu).

Regarding claim 25, , all the limitations of this claim have been noted in the rejection of claim 24 above. In addition, Liu discloses: wherein processing in the clustering process comprises: forming a tentative cluster from at least two of the items; determining whether the tentative cluster is consistent with an extension of the initial organization structure (col. 45, lines 52-55, Liu); and rejecting the tentative cluster in the event that the tentative cluster is inconsistent with an extension of the initial organization structure (col. 45, lines 36-51, Liu).

Regarding claim 26, , all the limitations of this claim have been noted in the rejection of claim 19 above. In addition, Liu discloses: wherein the first hierarchy includes at least a parent category and a child category and wherein the guided clustering process includes: interposing a new category between a parent category of

the initial organization structure and a child category of the initial organization structure (col. 46, lines 12-29, Liu).

Allowable Subject Matter

Claims 3 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance: the prior art of record failed to disclose: make obvious, or otherwise suggest adding a first additional feature to each of the first feature vector and the second feature vector, the first additional feature representing a first category of the initial organization structure, the first additional feature in the first feature vector corresponding to a degree to which the first item is similar to one or more items associated with the first category of the initial organization structure, the first additional feature in the second feature vector corresponding to a degree to which the second item is similar to one or more items associated with the first category of the initial organization structure as recited in claim 3.

The following is an examiner's statement of reasons for allowance: the prior art of record failed to disclose: make obvious, or otherwise suggest extending the feature vector of each of the first item and the second item with an additional feature representing a category of the initial organization structure, the additional feature in each feature vector relating to a degree to which respective item is similar to one or

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more items associated with the corresponding category of the initial organization structure as claim 13.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Pirolli et al. (U.S 5895470). System for categorizing documents in a linked collection of documents.

Hickerman et al. (U.S 6216134). Method and system for visualization of clusters and classifications.

Keith (U.S 6629097). Displaying implicit associations among items in loosely structured data set.

Marques (U.S 6182066). Category processing of query topics and electronic document content topics.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cindy Nguyen whose telephone number is 571-272-4025. The examiner can normally be reached on 8:30-5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A. Gaffin can be reached on 571-272-4146. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

cn
Cindy Nguyen
October 28, 2006


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